A HALF CENTURY OF ACCRUAL ACCOUNTING THEORY, 1886-1936

BY

DOROTHY ALBIETZ LITHERLAND

B.S., University of Illinois, 1945
M.S., University of Illinois, 1946

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ACCOUNTANCY IN THE GRADUATE COLLEGE OF THE UNIVERSITY OF ILLINOIS, 1951

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The nature of our modern business enterprise is such that periodically the effects of the recorded transactions must be summarized in various reports and statements designed to reflect the company's financial condition and operating results, because a major prerequisite to the continued success of any business is the ability of the company to profit by its own experience. Management must have the facts which point the way to more efficient production, more profitable sales emphasis, better control of expense, etc. To meet these informational needs of the business enterprise, a system of accounting called the "accrual system" has developed over a long period of time.

This study affords a view of a substantial and critical portion of the history of accrual accounting, revealing its evolutionary growth under changing legal and economic conditions, in response to the needs of the business enterprise. Accrual accounting is not revealed as a modern innovation in the structure of double entry bookkeeping but rather as an integral part of double entry whose capacities had lain dormant throughout the centuries until their development was called forth to meet the changing needs of the business unit. Accrual accounting ideas as we use them today are expressions of refinements in the logic by which business facts are analyzed and classified for the bookkeeping records. As old accounting ideas became irrelevant to a new set of economic conditions, new ideas were generated and they in turn made possible further developments in the economic environment. The expanded uses of double entry through the centuries gave such stress and prominence to real accounts and their reporting that the real usefulness of the nominal accounts was neglected and unperceived although they were in every ledger. The long years of evolution finally brought the addition of two things, periodicity of summary and a multiplication of the nominal

accounts. Gradually over a few more generations these and other developments conspired to bend accounting theory toward the emphasis on nominal accounts and thence to accrual accounting.

Early British Accrual Accounting Ideas

At the beginning of the half century, 1886 to 1936, accounting ideas and procedures were influenced by a legal idea, profits available for dividends, in response to the needs of the corporate form of business enterprise where directors' stewardship of ventured capital was a focal point of interest. In order to meet the problems posed by the utilities and railroads with their long lived assets men attempted, through a modification of the older merchandising accounting procedures, to devise methods whose results would be in harmony with Adam Smith's then well established economic doctrine of fixed and circulating capital. Under both the "single account" balance sheet and the "double account" balance sheet systems of calculating profit, the aim of British accounting was to produce a true balance sheet showing capital replaced. A loss of capital was considered a proper charge to the revenue account, the debit being a means of reflecting a constructive replacement of the loss before there were profits available for dividends.

It was believed that the balance sheet offered the most tangible evidence as to whether or not capital remained intact. Under the single account view of calculating profit all assets were valued in order to find the loss of capital. According to the double account view, only the change in value of the circulating assets was considered; a loss of fixed capital as represented by the fixed assets did not have to be replaced since the fixed capital did not earn revenue by circulating or "changing masters." Since an increase or decrease in capital could be measured by taking an inventory of assets and liabilities, the nominal accounts, an integral part of the ledger since the early days of double entry bookkeeping, were used by the British only for convenience and not because they were considered essential. An expenditure, for which no equivalent

amount of salable asset was received in return, was charged to a general expense account (that balance later went into revenue account) not because it represented an accruing enterprise effort to accomplish favorable results but because it represented a loss of capital which had to be replaced out of revenue. Profits, which were considered to be a result of calculating the excess of asset over liability inventories, could be influenced by the business man's judgment for which both British accountants and legal authorities had a traditional respect. As a result of debates over which losses of capital should be charged to revenue in order to show the correct profit residual after the replacement of capital, there emerged a mild apportionment of expenditures and earnings to periods. This was a characteristic of accrual accounting although at that time it was for a non-accounting reason, i.e. to determine profits legally available for dividends.

The "replacement of capital" approach to the calculation of enterprise profit influenced the accounting treatment of such items as merchandise inventory, bad debts, depreciation, et al., during the closing years of the nineteenth century and the early part of the twentieth century. The merchandise inventory at the beginning of a period was treated as a loss (debited to Merchandise Account because it represented circulating capital gone out), and the merchandise on hand at the end of the period was considered to be an asset found at that time that tended toward profit, and therefore was credited to the Merchandise Account. Book debts were treated as another asset to be inventoried in order that any loss of value could be charged against revenue account. Depreciation was considered to be a loss from wear and tear of fixed assets, no different from a loss due to storm, to theft, or to a decrease in market value. There was no uniformity of treatment because of the rather widespread belief that fixed assets were fixed capital, irrevocably committed to the enterprise undertaken, and that their replacement was a matter for the company officials to decide. If it was deemed wise to provide for the replacement of the fixed assets, then two courses were avail-

able: (1) a charge could be made against revenue for the loss from depreciation of fixed assets and a credit made to a Depreciation Fund account which was considered to provide for the replacement of the exhausted assets; (2) profits could be set aside for such contingencies as future renewals. Since the decision was left to the directors of the limited liability companies and they were often desirous of equalizing dividends, the charge for depreciation expense was sometimes made only in the years of high profits or it was sometimes omitted if appreciation was considered to have offset depreciation.

American Developments in Accrual Accounting Theory, 1906-1925

Further improvements were being sought in accounting for railroads and utilities when the twentieth century ushered in a period of increasing population, mass production under highly competitive conditions, and new legal regulations. Rapid growth of the accounting profession and an increase in accounting literature in the United States came with the development of the large scale manufacturing corporation, whose needs placed new pressures upon accounting methodology. Wise managerial decisions were necessary in order to meet competitive conditions, but the complexity of the large scale organization made it impossible to base those decisions on personal knowledge; hence, there was a need for regularly periodic accounting information regarding the causes of profit results as well as the profits total. Interest in the sources of profit turned attention to the nominal accounts, an integral part of the ledger with hitherto unused capacity for revealing the operating story of the business enterprise. As the volume of business transactions increased and the profit and loss account became awkward and inconvenient, the number of nominal accounts multiplied and their contents provided information for the analysis of the causes of profit. The increased use of nominal accounts led accountants to question the old view that the profit and loss account measured the excess of resources over specified recognized liabilities. Net profit came

to mean the excess of income over operating costs, expenses, and losses relevant to a specific fiscal period.

The effort to apportion expenditures and revenues to periods brought realization that the use of regular fiscal periods in accounting for the manufacturing enterprise represented a purely artificial division of the productive process and that as a consequence a balance sheet including the figure for profit or loss was not really a statement of "true facts" but rather a statement of opinion. This departure from the old idea that balance sheet items represented tangible realistic values was significant because it opened the way for the development of techniques for making dependable and objective estimates, an essential feature of accrual accounting. The established idea that every asset was the embodiment of a particular credit on the balance sheet also came to be questioned under the pressure of accounting for the manufacturing enterprise during the early twentieth century. As men sought to improve the nominal account information, the problem of classifying expenditures became a question of charging the outlay to the period in which its benefit was received and not a question of a discretionary charge to revenue account or capital account with an eye to the equalization of dividends. The influence of Adam Smith's economic theory waned with the dawning perception that the relationship between assets and capital was not as significant as the relationship between asset and expense, an idea inseparably related to accrual accounting.

The expansion of the mechanics of credit brought a need for more and improved investigation of borrowers. The desire of the banker as a grantor of short term credit for a conservatively stated balance sheet (as the measure of a borrower's solvency) retarded the new trend of emphasis toward profit and loss information during the first quarter of the twentieth century. Accountants, believing in the merits of financial conservatism by business men and not yet fully aware of the limitations of accounting, attempted to express this philosophy of conservatism in the balance sheet. The deep rooted belief that the real accounts represented items that

were real and objective and that the nominal accounts in themselves represented nothing real, also contributed to the continued adherence to the balance sheet approach to income determination. When the high corporate income taxes that accompanied World War I led accountants to seek improvement in the profit and loss information, the progress that was made came not from the abandonment of the balance sheet approach but from a critical re-examination of that method of determining income. As accountants looked for a valuation method that would yield dependable results with respect to the nominal accounts, they began to forsake the solvency view of the balance sheet and to turn to a productivity view for that statement. The old liquidating value gave way before value on a going concern basis. This came to mean cost, less depreciation. The development of cost accounting for the factory brought recognition of conversion transactions in the accounts, thus contributing to the growth of a cost concept, and hence, to the evolution of the going concern valuation principle. Men began to see that the only difference between asset and expense was the relative permanence of one compared with the other. Expense began to lose its old meaning of "loss" and to carry the idea of productive effort. At last the business transaction was recognized as an exchange of values that might be between persons as when a sale was made or between accounts within the business itself. This effort to interrelate accounting ideas so that they gave support to each other was a significant step in the evolutionary development of accrual accounting theory. The movement toward the idea that careful balance sheet valuations were necessary first of all for profit and loss reasons was evidence that men were gradually working toward a perception of the cause and effect relationship between expense and income.

The progress of accrual accounting theory in the development of a cost of operating concept in turn influenced accounting's legal and economic environment during the first quarter of the twentieth century. It made possible the expansion of federal and state supervision, control, and regulation of busi-

ness. This was exemplified in the regulation of railroads by the Interstate Commerce Commission and in the use by state utility commissions of the cost of operating figure in setting rates for utilities' services. It resulted in an increase in safe credit transactions. It is significant that bankers, who had ever been interested in the solvency of enterprises to whom they granted credit, began to recognize that debt paying ability was best revealed by a statement of financial condition together with a history of operations for the preceding periods. Finally, the development of ideas about accrual accounting seemed to have a bearing upon the recognition of an "accrual basis" of accounting for income tax purposes under the 1916 law.

The American ideas about the significance of nominal accounts as a tool for providing profit information received various degrees of recognition in the accounting for accruals. There was some stress on the importance of the cost of goods sold figure but the continued use of the "cost or market" rule in valuing merchandise on hand was evidence that such factors as directors' and bankers' conservatism had greater influence on the accounting treatment of inventory than had the desire to measure the accruing costs of the services rendered by the enterprise. Under the valuation principle a variety of ideas arose concerning the nature of the nominal account, bad debts. It was variously classified as loss, expense, and adjustment of revenue. It was difficult to value receivables on a going concern basis because of the problem of estimating the measure of a presently occurring event about which the facts could not be known until later. Prepaid and accrued items were inventoried for the purpose of proper apportionment of expenses and incomes by periods rather than for the previous British aim of showing in the balance sheet the profits available for dividends.

The influence of such motivating forces as desire to maintain capital and the problem of financing replacements of fixed assets retarded the development of depreciation accounting. In practice fixed assets were valued on the balance sheet at their cost less actual depreciation (expressed in dollars), at

their replacement cost, or at original cost less depreciation figured by any one of a number of formulas. However, in response to the felt needs of the twentieth century manufacturing enterprise, there developed a growing conviction among accountants that depreciation existed separately from maintenance, that careful management could not prevent it, and that the charge for it should be made consistently regardless of the amount of the profit results. By 1925 the most advanced theory was that the total cost of long lived equipment was to be apportioned to the several periods in which the equipment would help to produce income. This view included two of accrual accounting's essential ideas — the apportionment of costs to periods and the existence of a relationship between expenses and income.

Cost and Revenue Approach to Income Determination

Although the doctrine of original cost as the proper basis of valuation of balance sheet items was unsettled during the years 1925 to 1936 by the epidemic of writeups of fixed assets to appraisal values followed by a wave of writedowns, progress was made in the development of accrual accounting theory; and by 1936 the gradual shift in emphasis from the balance sheet to the profit and loss view of income determination was complete. Accountants who had accepted "original cost" for the sound reason that they viewed assets as outlays to be charged against future revenues were able to stand firm against the argument that original cost figures were no longer realistic. These men quite logically considered the valuation problem to be intimately related to the problem of determining the cost of operations for the different periods involved.

As management of the competitive business enterprise turned attention to the control of costs as a means of achieving more favorable income results, there was a felt need to know more about the cost of production in order to compare it with the revenue received and thus to measure the degree to which the economic service rendered was satisfactory. An improved cost concept evolved. Building, machinery, raw materials, and

wages were seen as parts of the total cost assignable against particular quantities of revenue, and thus accrual accounting ideas that long had been discussed separately now became parts of an integrated body of thought. The concept of income measurement finally came to be the periodic accrual and matching of expense and income (enterprise efforts and accomplishments) which is the essence of accrual accounting.

The cost and revenue approach to income determination influenced ideas concerning the proper treatment of specific accrual problems. The entry for bad debts was viewed as an adjustment of the accrual accounting assumption that income is realized when a sale is made; periodic adjusting entries for accrued and deferred items were considered necessary because it was not practicable to keep a day by day record of the accruing expenses and incomes; the accounting treatment of depreciation expense was recognized as a means of spreading a past expenditure over the product to which it gave rise. Thus the adjusting entries were necessary for apportionment reasons and not for valuation reasons. These ideas were not yet generally accepted as evidenced by the widespread use of the cost or market rule for inventories and the still commonly expressed view that the accounting recognition of depreciation was a means of holding out funds for a known future expenditure. However, it was significant to the development of accrual accounting theory that to advanced thinkers of that time the accrual technique constituted a refinement of the association of cost with revenue.

By 1936 most textbooks were still using the balance sheet equation in presenting bookkeeping fundamentals, but there was improvement in the explanations of accounting procedures and in the terminology used. That accountants now looked upon the ideas which had developed in regard to accounting for accruals as parts of an integrated body of theory was evidenced by their references to an "accrual system of accounting."

Possibilities For Future Developments

Although the year 1936 marks the close of this study of the evolutionary development of accrual accounting theory that does not mean that a perfected system was completed in that year. There was still progress to be made. Indeed a new social and economic pattern was forming at that time, and in view of accounting's accomplishments over the fifty year period it is not unreasonable to expect further developments in response to the challenge of the newly changing environment. It was possible to improve the then present usage. The accuracy of the net income calculation could be improved by making a direct approach to the determination of cost of sales as a measure of the accruing enterprise services rendered; the accounting treatment of depreciation could be improved by a sharper distinction between wear and tear and obsolescence, and by estimating the useful life of individual fixed assets; it was possible to improve the estimate of bad debts by ageing the individual accounts receivable; and finally the understanding of the fundamental logic of the accrual accounting concept could be increased by improved, carefully thought-out explanations in teaching. There were also possibilities for expansions of usage beyond that of 1936. There was a possibility of developing methods of applying the accrual technique to distributive and administrative costs, of making standard costs acceptable for ledger entry and thus refining the measure of the cost of revenues earned, and of developing procedures that would reflect purchasing power dollars in the accounting records. The extent to which these possible future developments would materialize depended largely upon accountants' ability to overcome the inherent limitation of accrual accounting, the difficulty of measuring a current fact before it can be reliably verified.

This study of a fifty year period has traced a story of slowly growing awareness of the usefulness of the nominal accounts and the message they carry as men of two generations critically examined the early methodology under the urge of their own times. The gradual perception of the sharpened

periodic recognition of the inter-relevance of income and expense as the focal center of the business enterprise showed that accrual accounting was the aspect of double entry bookkeeping that made the greatest contribution to management's control of enterprise activities. Thus men of the twentieth century molded the system into an instrument of wide usefulness beyond the imagination of its early users. The accounting technique and theory of the future and the future role of accounts in economic organization are dependent upon the vision of practitioners and teachers of accounting.

VITA

The writer of this thesis, Dorothy Albietz Litherland, was born in Allendale, Illinois, March 8, 1906, and attended the elementary schools there. After graduating from High School at Mt. Carmel, Illinois, in 1924, she taught in the public schools at Allendale, Illinois. She completed two years of college work by attending summer sessions at Indiana State Normal at Terre Haute, Indiana and one full year at Illinois State Normal University at Normal, Illinois. After her marriage in 1927 she retired from teaching, but later returned to teach for three years in the Albion Community High School, Albion, Illinois and in the Homer Grade School, Homer, Illinois.

The writer enrolled in the University of Illinois in 1944 and received the degree of Bachelor of Science in June, 1945, graduating magna cum laude. She received the degree of Master of Science in 1946 and passed the Illinois examination for Certified Public Accountant in May, 1948. She has been an assistant and an instructor in Accountancy since September, 1945. She is a member of Kappa Delta Pi, Phi Kappa Phi, and Beta Gamma Sigma.